

DATE: January 8, 2018  
TO: Mitch Swecker  
FROM: ECONorthwest Team (Sarah Reich, Ed MacMullan, Mark Buckley, Joel Ainsworth)  
SUBJECT: TECHNICAL MEMORANDUM – TASK 2: ASSESSING CURRENT DEMAND (REVISED)

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This memo follows from Task 1 of this analysis to describe how passenger air service is distributed in Oregon using the framework of supply and demand. The emphasis of this memo, however, is understanding the drivers of current demand in Oregon and how that may influence the ability to increase air service in the state. This analysis does not seek to formally measure the sensitivity of Oregonians to regional prices, but instead describes the broad changes in demand by region, which are influenced by income, employment, and population size.

We also briefly discuss the supply of air service in Oregon. Describing the specific conditions that increase a private firm's investment in a region is beyond the scope of this analysis. Instead, we focus on the broad industry trends, which may affect the supply of passenger air service in Oregon and, where possible, discuss solutions the state can offer to improve that service, namely where the potential for increasing passenger air service intersects with the drivers of demand described above.

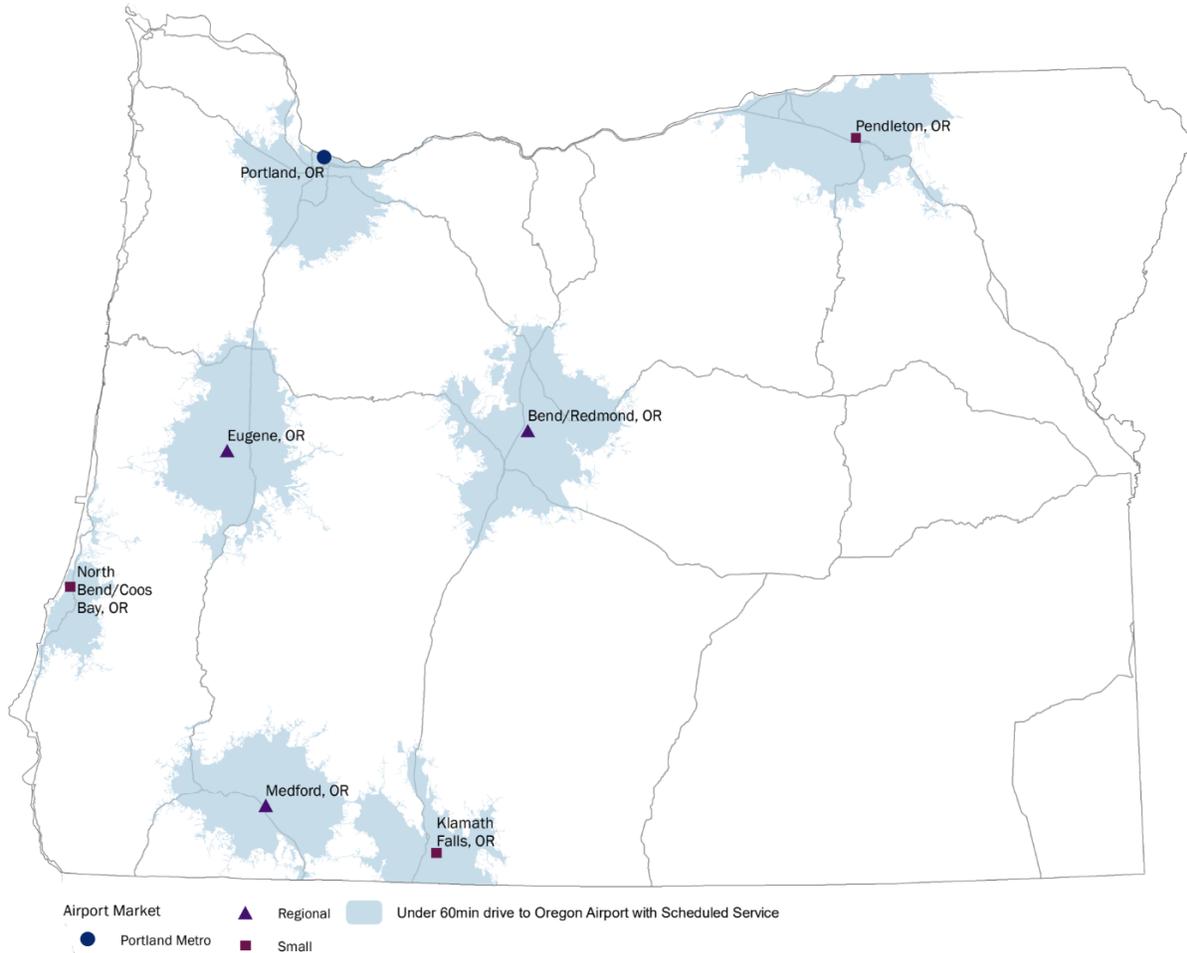
## Supply of Passenger Air Service in Oregon

### Airport location and Conditions

Access to airports is a necessary condition when considering how the supply of passenger air service is distributed around the State of Oregon. The Federal Aviation Administration has specific definitions to categorize airports, based primarily around ownership and relative magnitude of enplanements. These classifications make sense when comparing airports across states, but can mask the variation of use that occurs across regions *within* Oregon.

Growth in airport demand is often a component of regional economic development. Instead of using FAA airport classifications, we instead looked at the magnitude of enplanements through the lens of the communities in which the airport operates. With that in mind, the data reveal three distinct markets in which scheduled aviation occurs: the Portland Market, Regional Markets (Bend/Redmond, Eugene, and Medford), and Small Markets (all other communities listed in the Bureau of Transportation Statistics data). ECO attempted to make a further distinction between "small" and "rural" markets, but much of the air service that fell into these rural communities either did not appear in the data, or were too sporadic to describe meaningful trends in use.

**Figure 1. Communities with scheduled air passenger service in 2017**



Source: U.S. Bureau of Transportation Statistics, T-100 Domestic Market Data; ArcGIS Online

Note: Klamath Falls lost access to Passenger Air Service in August 2017 when PenAir announced that it would cancel all future flights as a cost-cutting measure.

Figure 1 displays the communities where scheduled passenger service is located in Oregon. Additionally, we mapped catchment areas for each airport using 1-hour travel sheds. As mentioned earlier, airport development is tied to regional economic growth. Utilization of air service grows in locations where income and employment are high enough to pay the cost of travel, and where the population base is large enough to justify the investment by air carriers.

### Pilot Availability

The availability of qualified pilots to fly additional routes is a key factor to increasing the availability of passenger air service at regional and non-hub airports. A recent study by the U.S. Department of Transportation identified pilot shortages in the United States as a key threat to

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the health of air service in small communities<sup>1</sup>. A survey, conducted by the University of North Dakota estimates a cumulative gap of 14,000 pilots between 2016 and 2026 as fewer pilots enter the industry.

The impact is likely to be felt especially by regional air carriers that serve non-hub or local airports. In March 2017, SkyWest's CEO warned that the shrinking supply of pilots would reduce the reliability of flights in small communities, which could affect local demand. The change in response to canceled flights, in combination with fewer pilots result in severe cuts in service for those small communities<sup>2</sup>.

Additionally, the current stock of pilots is aging and will soon reach retirement age. According to a study by Flightpath Economics, approximately 18,000 pilots in the largest U.S. airlines will reach their mandatory retirement age over the next eight years<sup>3</sup>. As these pilots retire, the national airlines will reach further into the pool of regional airline pilots to fill the gaps, further stressing reliability of flights to local communities.

The effects of the pilot shortage are already affecting the ability to maintain passenger routes in Oregon. In October 2017, for example, Horizon Air temporarily reduced flights between Portland and Medford due to a lack of pilots to cover current routes during an aircraft transition<sup>4</sup>.

The supply of pilots is affected primarily by broader industry trends and federal regulations. One area, where the state can help influence the future stock of pilots, however is in education. Regional airlines are partnering with pilot training programs to strengthen the employment pipeline while reducing some of the costs that make entry into the industry more challenging. For example, Horizon Air is teaming with the Hillsboro Aero Academy to offset the cost of tuition and offer employment to students who complete the requirements for their commercial pilot license<sup>5</sup>.

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<sup>1</sup> U.S. Department of Transportation. May 9, 2017. Report of the Working Group On Improving Air Service to Small Communities.

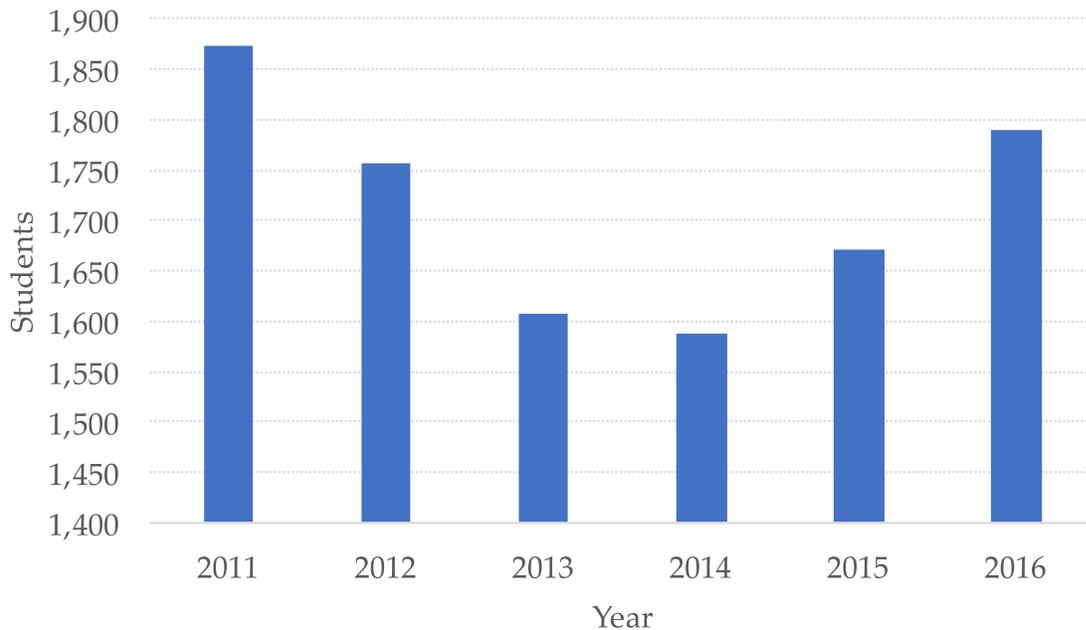
<sup>2</sup> Karp, Aaron. "CEO: Pilot Shortage Could Cause Severe Cuts." March 8, 2017. *Aviation Daily*.

<sup>3</sup> Akins, Dan and Matt Barton. Flightpath Economics. "Grounded. The Devastating Impact of the Pilot Supply Crisis.", February 26, 2017. Available at: <http://nebula.wsimg.com/658ca45e9f704ea13ba121f1ae87c20e?AccessKeyId=78B226224CEB6E47D1E7&disposition=0&alloworigin=1>

<sup>4</sup> Eastman, Janet. "More Horizon Air flights canceled in October." October 1, 2017. *The Oregonian*.

<sup>5</sup> Pamplin Media Group. "Hillsboro Aero, Horizon Air strike deal for new pilots." December 16, 2016. *Hillsboro Tribune*.

**Figure 2. Registered pilot trainees in Oregon, 2011 - 2016**



Source: Federal Aviation Administration, Civil Airman Statistics

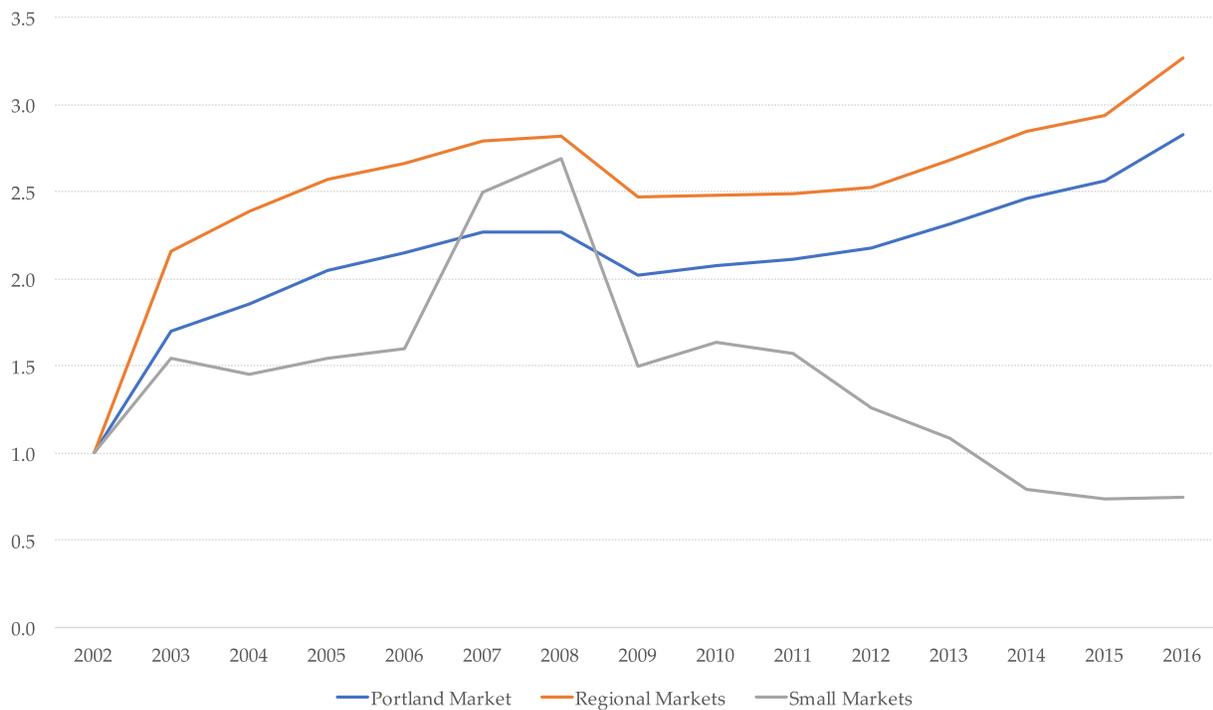
In 2016, there were almost 1,900 registered aviation students in Oregon, up from a recent low of 1,590 in 2014. The students who opt to obtain their commercial license will serve as new recruits for local and regional airlines. Innovative ways to reduce the licensing costs, along with working with industry to strengthen the pipeline to employment, could help push the number of students training in Oregon up as local schools serve as feeders into the region's aviation industry. Flight training is an important part of the financial business model for several small airports, such as Hillsboro, Bend and Prineville. The Sisters Airport hosts a flight science high school program with Sisters High School, one of three in the nation, that can lead to students taking pilot testing.<sup>6</sup>

### Available seat-miles in Oregon

One measure of understanding how the supply of air passenger service is changing in a region is to look at the available seat-miles (ASM). ASM is a measure of air passenger capacity; one seat-mile is equivalent to one passenger seat being transported one mile. This measure is important because airlines must constantly match supply of air passenger service with consumer demand along a flight segment. Too few seats require airlines to increase air fares and bump passengers from flights. On the other hand, having excess capacity on a flight reduces the profit-margins along that segment.

<sup>6</sup> Personal communication. Gary Judd (Bend Airport), Dave Campbell (Sisters Airport).

**Figure 3. Growth and decline in available seat-miles, indexed to 2002**



Source: U.S. Bureau of Transportation Statistics, Transtats

The ASM between the three markets used in this analysis varies by orders of magnitude due to the size of each market. In order to compare how the supply of air passenger service has changed over time across these categories, we indexed the ASM to 2002. This allows us to focus on the growth or decline of air passenger service in a comparable way. Figure 3 illustrates how each market has experience increases or decreases in the supply of air passenger service over time.

All three regions experience fairly rapid growth after 2002, likely due to a recover from the 2001 terrorist attacks and a recession earlier in the decade. With of the small markets in 2003, all three markets experienced some modest growth in ASM until the Great Recession began in late 2008.

The disruption in employment and disposable income led to a severe reduction in demand for air passenger transportation, requiring reductions in service. Additionally, fuel prices experienced a rapid and dramatic increase during this time. The combination of higher cost combined with lower demand created significant financial strain on the industry, especially regional airlines that use 50-seat jets for short-haul flights. In response, airlines began to reduce the number of these jets in service<sup>7</sup>.

<sup>7</sup> Office of the Inspector General. "Aviation Industry Performance: A Review of the Aviation Industry, 2008-2011." September 24, 2012. U.S. Department of Transportation

The results of those decisions can be seen in Figure 3 as ASM decreased dramatically in smaller markets around Oregon. After a rapid period of growth through 2008, air passenger capacity was only at 70 percent of the level it was in 2002. The supply of passenger air service, however, only explains part of the story. Consumer’s willingness to pay for air travel at certain prices also influences an air carrier’s ability to supply that service in a market. We discuss these factors in the next section.

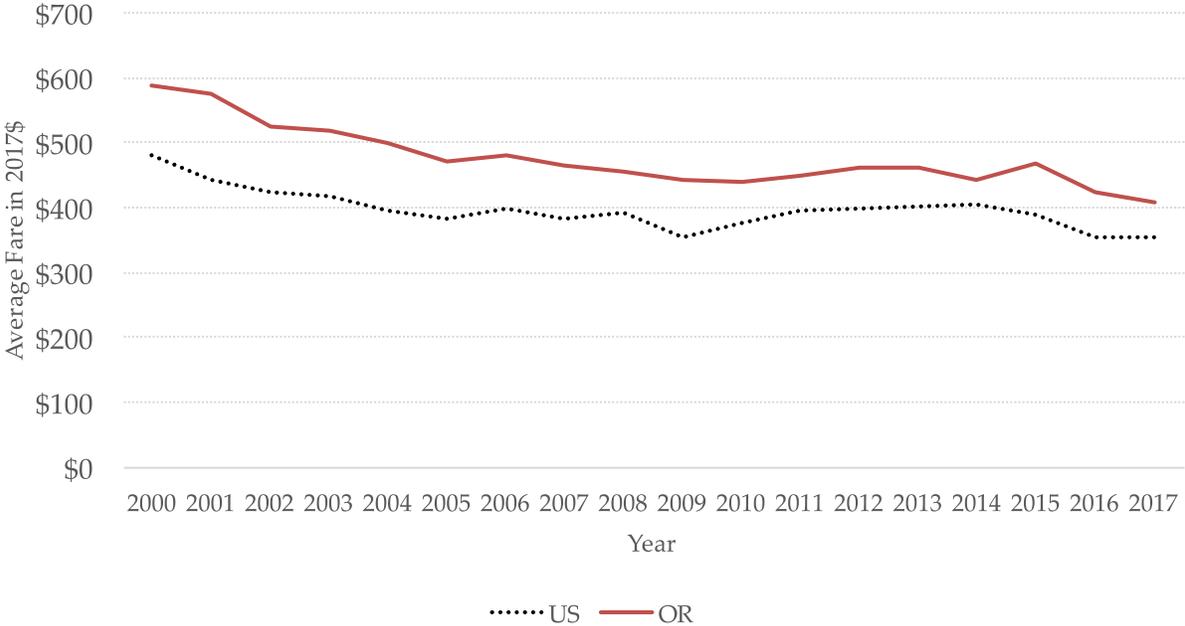
## Demand for scheduled passenger air services in Oregon

### Price of airfare

The demand for air service is influenced by consumers’ willingness to pay for that service at a given price. Consumers are highly sensitive to changes in the price of air fare relative to their incomes. Economists refer to this as the elasticity of demand. Adjusting for inflation, real prices for air travel have declined over time making the cost of air fare a smaller share of the cost of travel. On the other hand, price transparency in the aviation markets has made consumers more sensitive to the airline and route in which they choose to travel.

On average, Oregon has maintained slightly higher average air fares than the U.S. average. As air passenger service has gotten relatively less expensive, Oregon has followed the U.S. trend downward. After adjusting for inflation, average airfare in Oregon declined by \$179 between 2000 and 2017. Figure 4 displays this trend over the intervening period.

**Figure 4. Average Air Fares for U.S. and Oregon (in 2017\$)**



Source: U.S. Bureau of Transportation Statistics, T-100 Domestic Market Data

The benefits of declining prices are felt in primary airports that offer longer flights to main hubs, allowing the fixed costs of flying to be spread over a greater number of passengers and

longer distance. In smaller regional airports that connect to primary hubs in smaller aircraft, the average cost per mile is higher. This, in effect increases the cost of flying from non-hub to hub airports, while also having broader regional effect on air prices in Oregon.

Table 1 displays the average itinerary yield (average air fare divided by miles flown) for airports captured in the DB1B Ticket database for 2017. The data reveal a higher regional cost of traveling from airports in smaller communities, compared to flying directly from primary airports such as Portland. The Bureau of Transportation (BTS) data do not capture fares from small or remote airports. However, the higher per seat operating costs for smaller airports in Oregon are likely to result in higher costs for consumers.

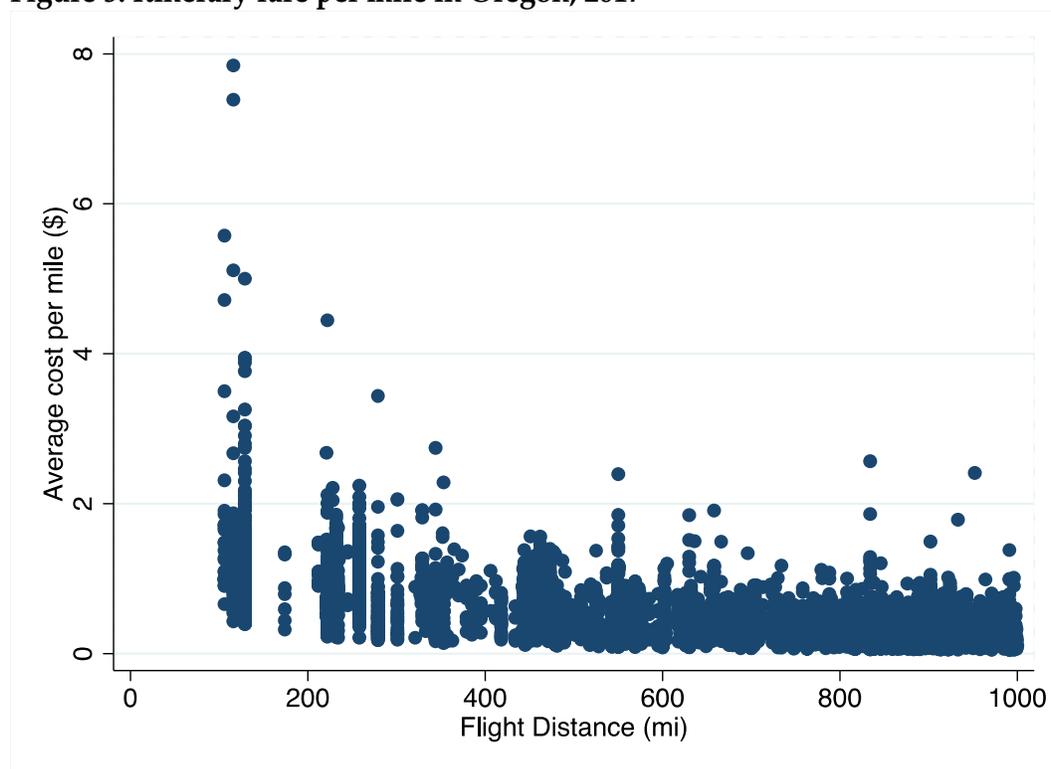
**Table 1. Average itinerary fare per mile by origin airport, 2017**

<b>Location</b>	<b>Airport ID</b>	<b>Average Cost per mile</b>
North Bend	OTH	0.38
Redmond	RDM	0.25
Eugene	EUG	0.25
Medford	MFR	0.24
Portland	PDX	0.20
<b>Oregon</b>	<b>Overall</b>	<b>0.21</b>

Source: U.S. Bureau of Transportation Statistics, T-100 Domestic Market Data

In addition to locational decisions about where to board for a flight, the unit costs for distance traveled is an important factor in choosing to fly over other means of transportation. Figure 5 shows the average price per mile a consumer paid in Oregon to travel a given distance. Generally, as the distance increases, the average cost to fly declines. Again, this is tied to the air carrier’s ability to spread the fixed costs of flying over both the number of passengers and distance traveled.

Figure 5. Itinerary fare per mile in Oregon, 2017



Source: U.S. Bureau of Transportation Statistics, T-100 Domestic Market Data

For example, the average itinerary yield per mile was around \$0.21 in Oregon during 2017. In-state segments, which average under 200 miles were closer to \$1.11 per mile resulting in a substantially higher marginal cost to travel by air within the state. It is also important to note that the type of air carrier also plays a role in determining the price consumers face when considering air travel. Air carriers that offer non-scheduled or charter services charge a premium for that service, which may explain many of the outliers in Figure 5.

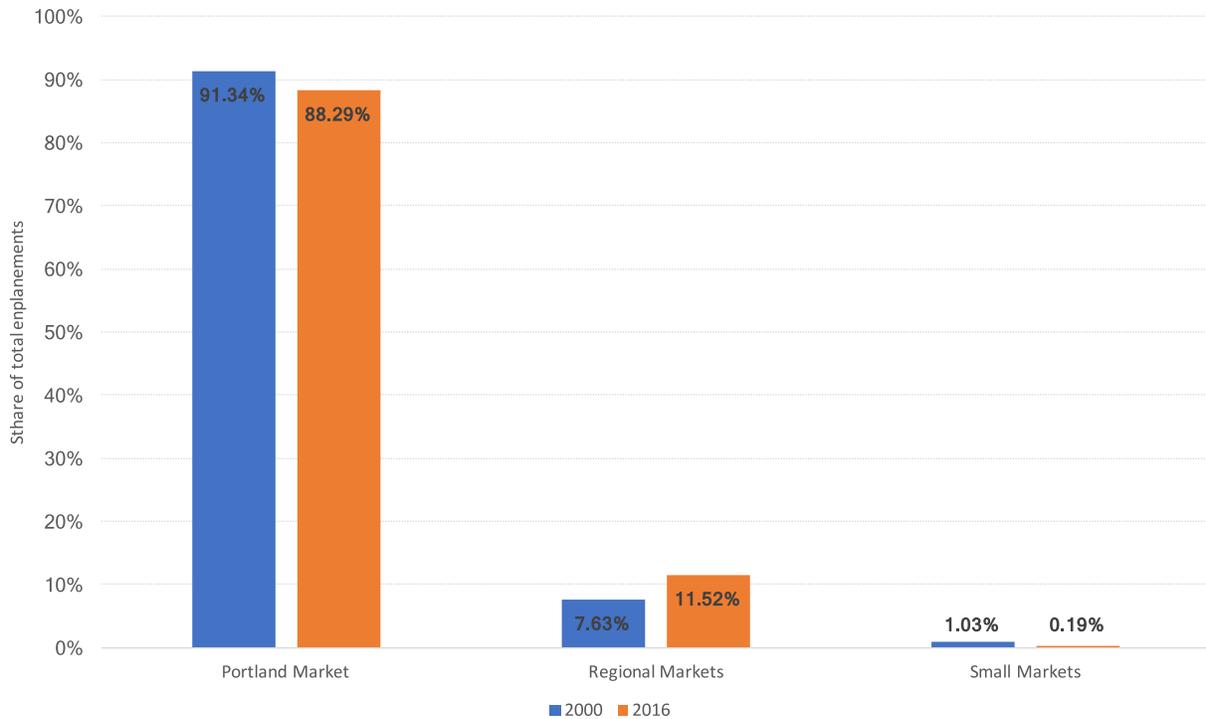
### Airport Utilization

The traditional metric for measuring the health of airports are enplanements, that is, how many passengers boarded and airplane at a specified airport. Airlines use the data to help make decisions about allocating services across different regions. The metric is also used to help inform funding decisions by the Federal Aviation Administration and the Department of Transportation.

In Oregon, regional markets –including Bend/Redmond, Eugene, and Medford- have claimed a larger share of enplanements since 2000, pulling passengers from Portland’s international airport and smaller airports. Over the intervening sixteen years, Oregon’s regional markets have claimed just over 10 percent of total enplanements, up from 6.9 percent. This follows a broader trend of growth in regional airports in the United States, as main airports have become

more congested and the distribution of population has moved closer to urban areas around the country<sup>8</sup>.

**Figure 6. Share of scheduled enplanements in Oregon in 2000 and 2016**



Source: U.S. Bureau of Transportation Statistics, T-100 Domestic Market Data

Although the trend has been positive for regional markets in Oregon, enplanements have generally trended downward for smaller airports in the state. Oregon has made several attempts at improving access to small and rural communities working with industry and helping to subsidize the cost of travel.

In 2007, Delta began offering air passenger service in Salem (over 25,000 trips per year), which helped push the total number of enplanements upward when looking across Oregon’s smaller airports. Delta’s service only lasted a year, however, before ending in 2008 due to cutbacks.

Subsidies from the federal government aimed at restoring air service to rural communities led to Astoria and Newport receiving commercial passenger service in 2009<sup>9</sup>. The program was slow to take off, however, and ended in 2011 as the subsidies ended. SeaPort, the air carrier that

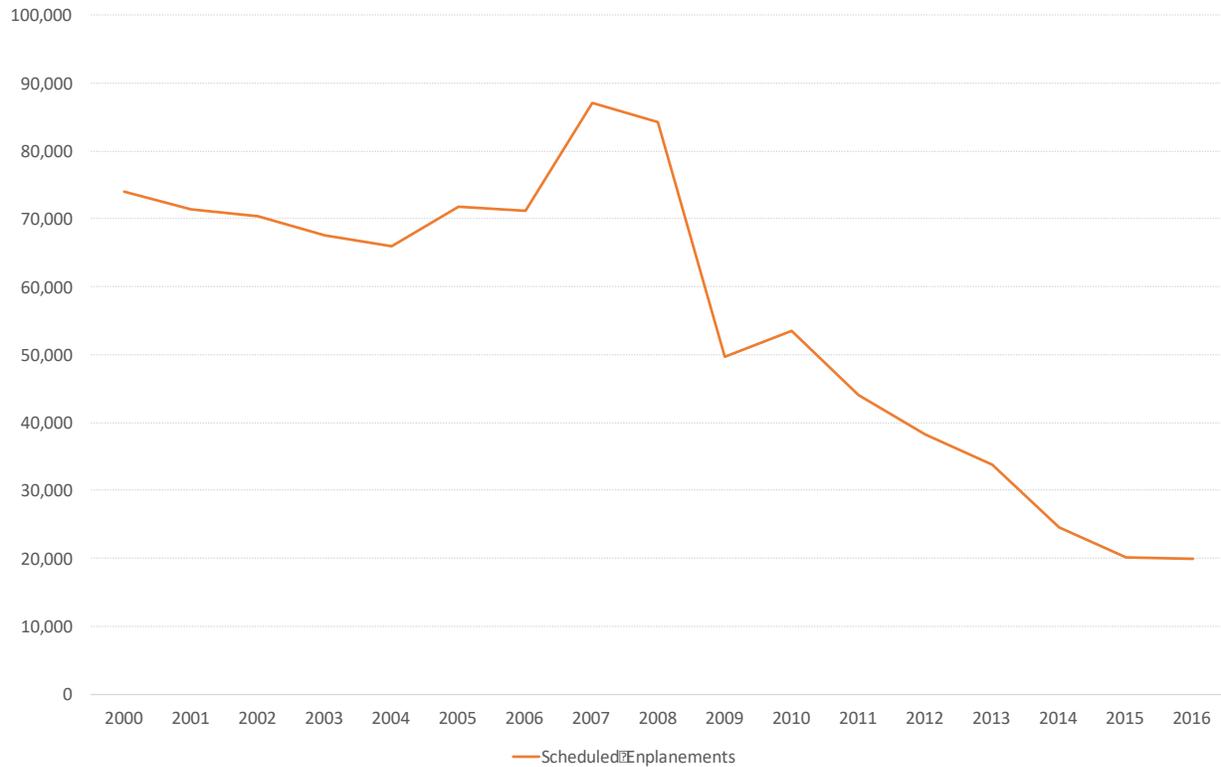
<sup>8</sup> Bonnefoy, Philippe & R. John Hansman. “Emergence and Impact of Secondary Airports in the United States.” 2004. International Center for Air Transportation, Department of Aeronautics & Astronautics Massachusetts Institute of Technology.

<sup>9</sup> Hsuan, Amy. “Flights to Oregon coast slow to take off.” May 9, 2009. *The Oregonian*.

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provided service to the cities blamed low passenger utilization and lack of profitability in their decision to end service.<sup>10</sup>

**Figure 7. Trend in Oregon scheduled enplanements for small markets between 2000 and 2016**



Source: U.S. Bureau of Transportation Statistics, T-100 Domestic Market Data

Lack of subsidies, however, does not entirely explain the decline in passenger service in smaller communities. The Eastern Oregon Regional Airport (PDT) in Pendleton is the only airport in Oregon that is part of the Essential Air Service (EAS) Program. The EAS subsidizes the cost for air carriers to continue service in small communities that were served prior to deregulation in 1978. Despite the subsidy, passenger trips to and from PDT have declined by 82 percent since 2000.

### Increased access to markets

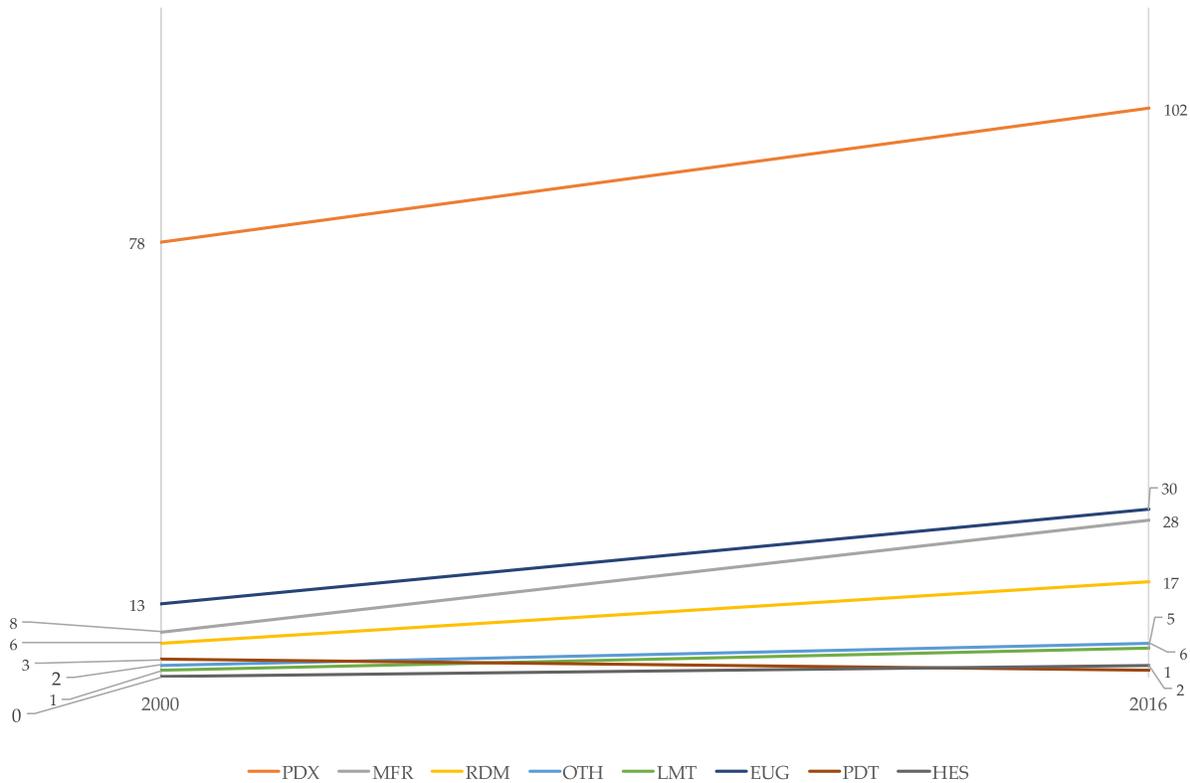
Enplanements are a useful, but narrow way of understanding airport utilization and demand. Connectivity though is how airports and airlines define success. The primary role that airports play is to connect consumers to national and international destinations. As the underlying economics of aviation have changed and air service has consolidated around regional markets, the number of markets penetrated by those airports has increased.

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<sup>10</sup> Tobias, Lori. "SeaPort Airlines raises concerns in some communities, hopes in others." January 4, 2012. *The Oregonian*.

In 2000, for example, Eugene only had thirteen flight segments in five states, requiring passengers to use more connector flights to travel long distances. By 2016, however, the number of flight segments originating from Eugene climbed to 30 across 11 states. Over that same period, the average flight distance climbed from 562 miles to 633 miles.

**Figure 8. Growth in flight segments served by Oregon airports between 2000 and 2016**



Source: U.S. Bureau of Transportation Statistics, T-100 Domestic Segment Data

Communities that were not able to penetrate further into distant markets lost market-share over the intervening period. The Eastern Oregon Regional Airport in Pendleton, for example, had 3 flight segments in 2000, but as of 2016 only had one segment. Over that same period, enplanements continued to decline as consumers either chose not to fly or demand shifted to nearby airports in Oregon, Washington, and Idaho.

Access is a key factor in the health of air passenger service in smaller communities because it can leverage investment opportunities from other domestic and international markets. Finding new ways to enter these markets though requires the right business strategy and sound underlying fundamentals that can support the demand for a new flight segment. These techniques are discussed more in the Task 3 and Task 4 memos.

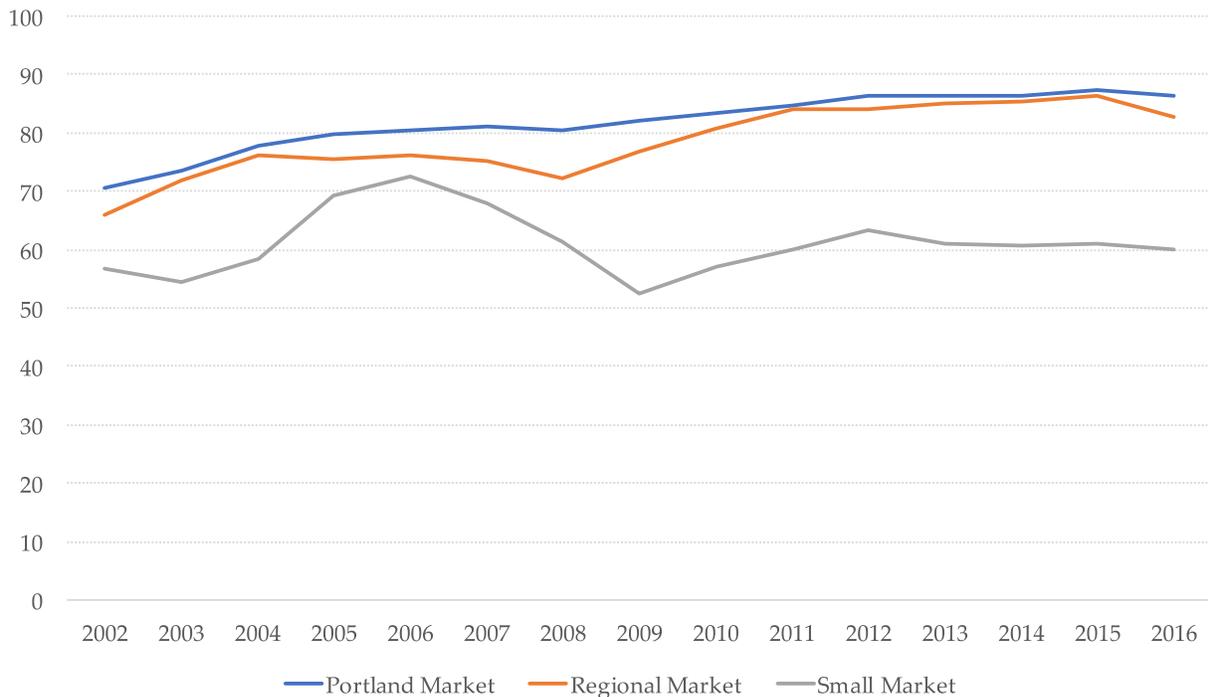
## Intersection of Supply and Demand

Combining the concepts of supply and demand helps describe a complete picture of the marketplace for scheduled air passenger service. The most common tool is to calculate the load

factor. The load factor combines the supply of seats available in a region and demand from passengers choosing to fly from that location. Airlines use this metric when seeking to understand how profitable a particular market segment is. High load factors mean that airlines are able to “right size” the supply of seats with the demand. In other words, passengers are filling every seat on the plane, thereby maximizing revenue for that flight.

Smaller markets typically have lower margins and are less profitable because demand for travel is not high enough to fill an airplane. At the same time, many smaller planes were retired during the Great Recession because of they were no longer profitable under the new market conditions. The result is a gap between the load factor for smaller markets and those in regional and primary markets. Finding ways to increase scheduled air service to smaller markets will require uncovering innovative ways to close the gap to ensure long-term profitability for the air carrier.

**Figure 9. Load factor by market segment in Oregon between 2002 and 2016**



Source: U.S. Bureau of Transportation Statistics, Transtats

Some communities, such as Klamath Falls have gained and lost service over the years, which can make determining current demand difficult, since there are gaps in data. This creates a “chicken and egg” problem for both industry and policy makers. How should interested stakeholders assess demand when there is no, or limited historical data?

Solid business plans, communication between industry and the community, along with willingness to take risks are key to gaining or improving access to passenger air service.

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Additionally, using socioeconomic indicators for communities can help assess whether the underlying conditions of demand are present.

In a 2003 survey by the GAO, air carriers identified demographic and socioeconomic indicators as key priorities for evaluating the potential of small markets. Specifically, population size, employment growth, and income were all defined as important regional characteristics. These indicators are grounded in the economic literature which has quantified how demand for commercial air travel changes with these indicators. Specifically, the study found that<sup>11</sup>:

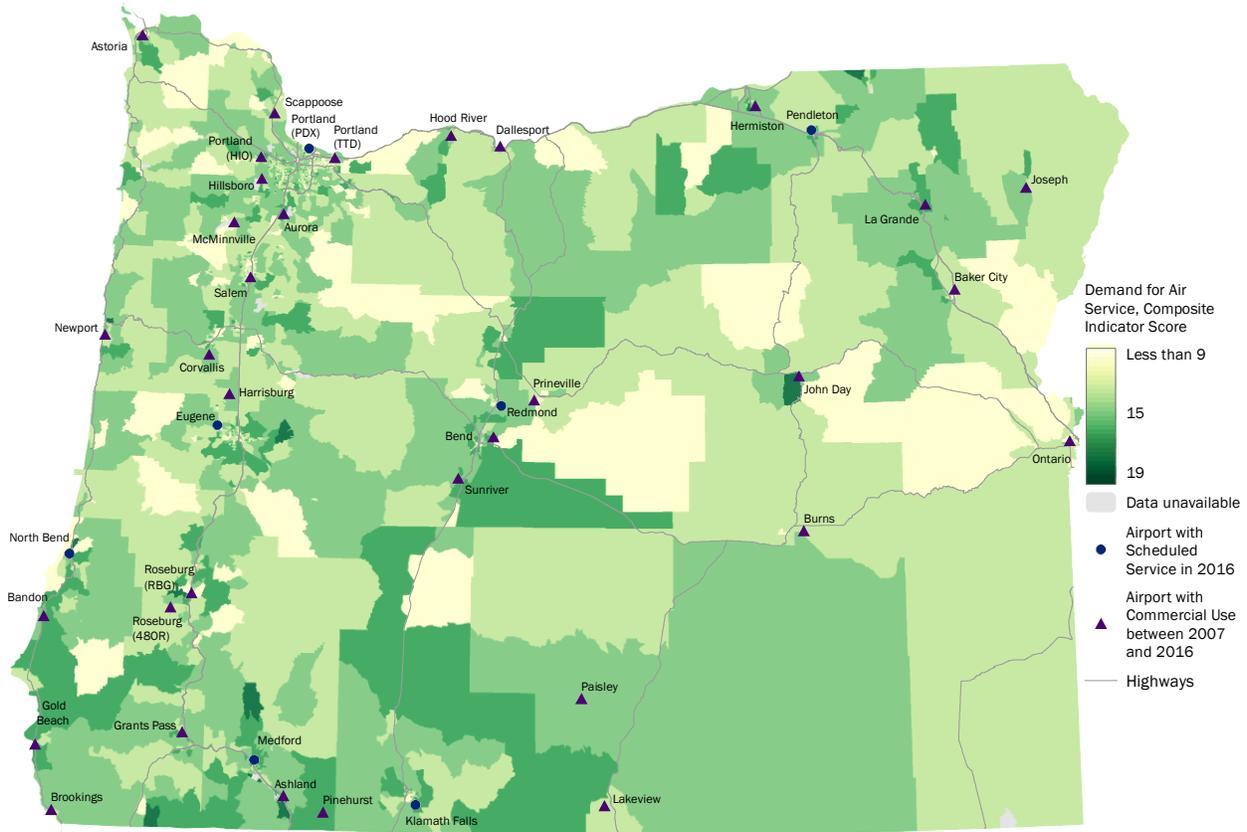
- “For every additional \$5,000 in per capita income, a community received 3.3 and 12.7 more jet and turboprop departures per week.”
- “A community received 4.3 and 4.8 more jet and turboprop departures per week, respectively, for every additional 25,000 jobs in the community.”
- “A community with \$250,000 more in manufacturing earnings received 4.8 more jet departures per week than an otherwise similar community.”
- “A community received 4.7 more jet departures per week for every additional 50 miles separating the airport from an LCC {low-cost carrier}.”

Figure 10 combines the primary socioeconomic indicators of population, employment, and income to identify communities where there may be latent demand for passenger air services in Oregon. Latent demand occurs when consumers have the demand for a particular service, but are unable to satisfy that demand due to scarcity of supply or lack of information. We measured census block groups across four indicators that underlie potential demand: population growth, median household income, employment rate, and distance to Portland or Boise. For each indicator, we ranked the census block groups and divided them into five equal groups. The top 20 percent of block groups with the highest measure received five points, while those in the lowest 20 percent received one point. To produce a composite indicator score, we summed the four indicator scores for each block group. Figure 11 shows the four individual indicators, mapped independently, to illustrate how each census block group scored on each indicator.

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<sup>11</sup> Transportation Research Board of the National Academies. 2009. “Airport Cooperative Research Program, Report 18: Passenger Air Service Development Techniques.” Sponsored by the Federal Aviation Administration.

**Figure 10. Current demand indicators for air passenger service in Oregon**

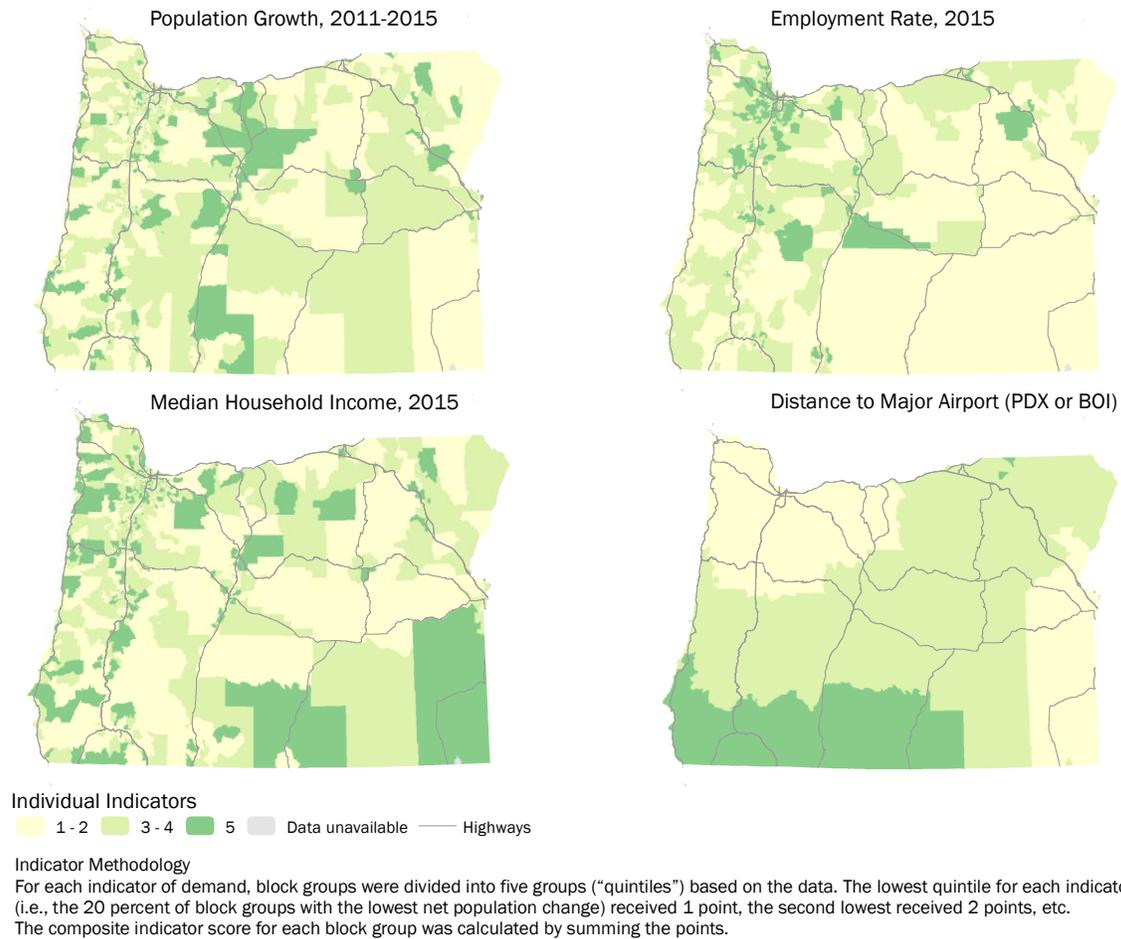


**Indicator Methodology**  
 For each indicator of demand, block groups were divided into five groups ("quintiles") based on the data. The lowest quintile for each indicator (i.e., the 20 percent of block groups with the lowest net population change) received 1 point, the second lowest received 2 points, etc. The composite indicator score for each block group was calculated by summing the points.

Source: U.S. Bureau of Transportation Statistics, T-100 Domestic Segment Data, American Community Survey 5-year estimates 2011-2015

This map takes into account access to air service in Portland and Boise through the Distance metric. This helps to reveal the areas of the state where access is comparatively more difficult, and have higher scores in the other areas. Areas of strong demand, relative to other areas, appear concentrated in Central Oregon, with pockets of potentially higher demand along the Central Coast, in Southern Oregon, and in parts of Eastern Oregon.

**Figure 11. Current demand indicators for air passenger service in Oregon, 2011-2015**



Source: U.S. Bureau of Transportation Statistics, T-100 Domestic Segment Data, American Community Survey 5-year estimates 2011-2015

This step only identifies potential communities where there may be latent demand for air passenger services. Because scheduled air passenger service has regionalized to provide more service to larger hubs with relatively lower prices, consumers are willing travel long distances to use airports, even when a nearby airport is present. Discussions within the community will be needed to uncover unmet demand for scheduled service, specifically around desired destinations and willingness to pay.

### **Nonscheduled air passenger service**

Nonscheduled air passenger services provide consumers with greater flexibility in scheduling and destinations than scheduled air passenger services. For example, air charters have greater ability to fly into smaller regional and general airports that larger airlines may be unable to access. This can be useful for individuals traveling from smaller communities that require point-to-point services and firms that do not have enough demand to justify full ownership of a plane.

Data on nonscheduled air passenger services is sparse compared to the data that BTS and FAA collect on scheduled passenger air service. Airfares, for example, are not always easily available, making decisions between scheduled and nonscheduled service a more complex transaction. Table 2 displays some average rates for private charter flights at Aurora State Airport. Direct comparisons to scheduled service can be difficult due to differences in fee structure and destination. However, per-passenger costs over short distances can be on par with scheduled service under the right conditions.

**Table 2. Estimated hourly rates for private jets**

Aircraft Type	Type Example	Max Passengers	Ballpark Hourly Rate
Turboprop	Pilatus PC12	6 to 8	\$1,200 - \$1,800
Very Light Jet	Phenom 100	4 to 5	\$1,500 - \$2,250
Light Jet	Hawker 400XP	6 to 8	\$2,200 - \$3,000
Midsized Jet	Lear 60	7 to 9	\$2,800 - \$3,800
Supermidsized Jet	Citation Sovereign	8 to 10	\$3,800 - \$5,000
Heavy Jet	Gulfstream G-IV	10 to 16	\$5,000 - \$8,000

Source: <https://www.evojets.com/>

Note: These only represent flight charges and do not account for taxes, fees, and crew.

BTS collects origin-destination data on nonscheduled enplanements at commercial service airports, but only some general aviation airports. For the origin-destination data that are available in the BTS dataset we find that the majority of flights are for out-of-state destinations with an average flight distance of 911 miles. Based on the BTS information, many of the air charter flights are likely used to access casinos and other gambling activities in Arizona and Nevada<sup>12</sup>.

**Table 3. Top-10 nonscheduled destinations originating from Oregon**

Rank	Destination	Enplanements
1	Wendover, UT	2323
2	Bullhead City, AZ	1729
3	Los Angeles, CA	891
4	Reno, NV	721
5	Salt Lake City, UT	716
6	Oakland, CA	660
7	Phoenix, AZ	509
8	Sacramento, CA	405
9	Denver, CO	384
10	Seattle, WA	380

Source: U.S. Bureau of Transportation Statistics, T-100 Domestic Market Data

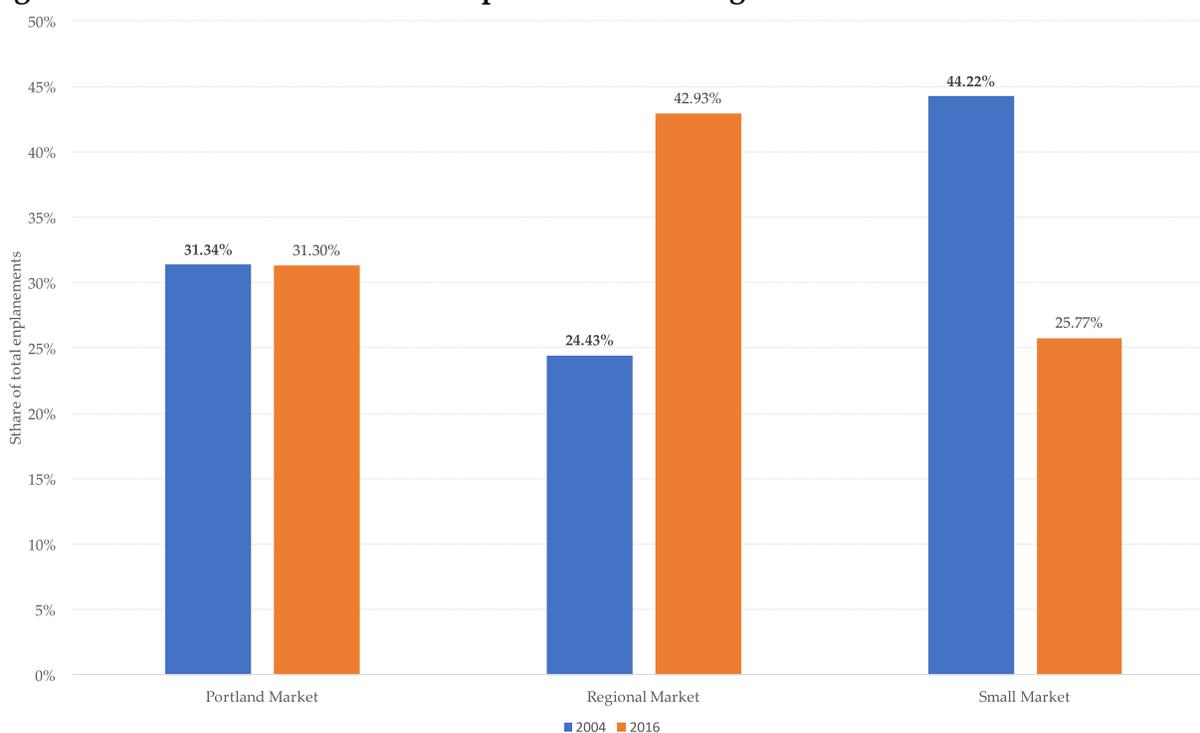
<sup>12</sup> Wendover UT, is right over the border from West Wendover, NV which is a small but popular gambling location. The two cities attempted to merge in 2002 but were blocked by the U.S. Senate.

BTS does not publish enplanements for many general aviation airports. The FAA however uses the BTS data for enplanement statistics, and reconciles it with their own data to produce enplanement statistics for all airports, including general aviation. By combining these datasets, we get a complete picture of enplanements for nonscheduled service around the state.

Unfortunately, the FAA does not report origin-destination information, nor information about the flight class. For this analysis, we assume all enplanements at general aviation airports are nonscheduled air passenger trips (with the exception of enplanements in Salem, Astoria, and Newport during years when they had scheduled passenger service).

The data show that between 2004 and 2008 enplanements at Aurora State Airport and Portland International experienced rapid growth until the recession began in late 2008. Since that time enplanements for nonscheduled air passenger service have returned to similar levels seen in 2001 – around 19,000 enplanements per year. What has changed over that period, is where many of those enplanements occur. Like scheduled service, many nonscheduled flights have also regionalized, with Portland and Eugene accounting for the plurality of nonscheduled enplanements.

**Figure 12. Share of non-scheduled enplanements in Oregon in 2001 and 2016**



Source: U.S. Bureau of Transportation Statistics, T-100 Domestic Segment Data; Federal Aviation Administration Passenger Boarding (Enplanement) and All-Cargo Data for U.S. Airports

Approximately 85 percent of reported nonscheduled enplanements from general aviation airports occurred at Aurora State Airport between 2004 and 2016. The reason regional markets have appeared to increase their share of enplanements is mainly due to the rapid decline in

utilization at Aurora State Airport. Since 2011, however, enplanements have started increasing with Aurora State again leading in the demand for nonscheduled air passenger service at general aviation airports. Airport managers and charter operators report that nonscheduled enplanement data are highly under-representative of actual numbers, with reporting inconsistent to non-existent. This makes the data only slightly useful and not representative other than for certain airports such as Aurora where Aurora Aviation does report enplanements and the FAA data reflect this. Still though Bruce Bennett of Aurora Aviation estimates that the Aurora Airport numbers are still likely a 10-15 percent underestimate. Differently, Hillsboro’s (HIO) reported annual nonscheduled enplanements of less than 5 each of the last three years (2014-2016) is likely less than the typical daily enplanements for Hillsboro.<sup>13</sup>

**Figure 13. Trend in Oregon enplanements for general aviation airports between 2001 and 2016**



Source: Federal Aviation Administration Passenger Boarding (Enplanement) and All-Cargo Data for U.S. Airports  
 Note: Data for general aviation airports missing in 2006 and was estimated for this figure

The recovery of Aurora’s nonscheduled air passenger service has been noticed outside of Oregon as a gateway to the state’s wine country. In 2014, Aurora State Airport was approved for a new control tower, which will help accommodate larger jets and more traffic<sup>14</sup>. More

<sup>13</sup> Personal communication. Bruce Bennett, Aurora Aviation.

<sup>14</sup> Padula, Andrew. “Aurora State Airport set to get traffic control tower.” Fox 12 Oregon. Available at: <http://www.kptv.com/story/25072952/aurora-state-airport-set-to-get-traffic-control-tower>

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recently, in late-2016, the Lynx FBO Network, a hedge fund backed fixed-based operator added Aurora's Jet Center to their portfolio, which should help expand services to the airport.

Despite the recent fluctuations in demand, nonscheduled air passenger service continues to play a key role in supporting the economic health of many general aviation airports. According to the FAA, nonscheduled air passenger flights, specifically Part 135 air taxi services account for 10.5 percent of hours flown at general aviation airports<sup>15</sup>.

Nonscheduled air passenger service is a particularly interesting segment of the aviation industry because of the recent attempts to create Uber-like options for air passenger services through businesses like BlackJet, which matched consumers to available seats on flights. The results so far have been mixed. BlackJet, started by the same founder as Uber, ceased operations in 2016<sup>16</sup>. Other companies such as Victor, seeking to develop similar technologies, however have seen growth in Europe.

New entrants into the markets have also attempted to create flight sharing services through the use of personal planes. The distinction between the Part 91 (non-commercial) and Part 135 (commercial) operations for on-demand charter services have blurred in recent years as technology has allowed pilots to connect with travelers. For its part, the FAA has sent mixed signals about its willingness to regulate the flight sharing services. For now, any business plans that want to improve upon on-demand services should be compliant with Part 135 while the regulatory and legal nuances are worked out.

Bruce Bennett of Aurora Aviation reports challenges to this approach given the low density of potential passengers for much of Oregon. But better information to coordinate across charter operators so as to potentially fill empty seats or empty legs could be useful. Some charter operators do advertise empty flights legs. This matching exercise is challenging though for maintaining the convenience generally expected for charter services.

Even with charter options, not all airports are equal for charter operators. For example, Redmond Airport provides safety features smaller regional Central Oregon airports do not have, such as a control tower or even a GPS Approach for pilots, not available at nearby Sisters for example. Small airports can also be challenged in providing the same amenities to travelers available at larger airports, such as restaurants. But small airports can offer complementary opportunities such as business parks and office facilities. Businesses connected to the aviation industry or that require frequent travel can find efficiencies from co-locating at airports, even if this requires reliance on private and charter flights.

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<sup>15</sup> Federal Aviation Administration. General Aviation and part 135 Activity Surveys. 2015.

<sup>16</sup> Primack, Dan. "Celeb-backed BlackJet is Grounded. Again." May 5, 2016. *Fortune*.